

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1-25 (Cancelled).

26. (New) A method for modifying the growth characteristics of a plant, comprising the steps of:

(a) transforming plant cells from a plant with a genetic construct which comprises a seedy1 nucleic acid sequence which encodes a seedy1 protein and which seedy1 nucleic acid sequence further contains the individual sequences in the following order from N-terminus to C-terminus: (i) the sequence according to SEQ ID NO 35; (ii) the sequence according to SEQ ID NO 16; and (iii) the sequence according to SEQ ID NO 36 and (iv) the sequence according to SEQ ID NO 37, wherein the seedy1 nucleic acid further consists essentially of a sequence having 90% sequence identity to a sequence selected from the group consisting of SEQ ID NOs 1, 5, and 7;

(b) expressing said seedy1 nucleic acid sequence in said transformed plant cells;

(c) regenerating transgenic plants from said transformed plant cells; and

(d) identifying a transgenic plant from said transgenic plants which exhibits an increase in any or all of above-ground area, number of first panicles, number of filled seeds or total seed weight per plant compared to non-transformed plants.

27. (New) Method according to claim 26, wherein said seedy1 nucleic acid is of dicotyledonous plant origin from the family selected from the group consisting of Solanaceae and Nicotiana.

28. (New) Method according to claim 27, wherein said seedy1 nucleic acid is operably linked to a seed-preferred promoter.

29. (New) Method according to claim 28, wherein said seed-preferred promoter is a prolamin promoter.

30. (New) A plant or plant cell obtained by the method of claim 26.

31. (New) A genetic construct comprising: (i) A seedy1 nucleic acid encoding a seedy1 protein and comprising a seedy1 nucleic acid containing the individual sequences in the following order from N-terminus to C-terminus: (i) the sequence according to SEQ ID NO 35; the sequence according to SEQ ID NO 16; and (iii) the sequence according to SEQ ID NO 36 and (iv) the sequence according to SEQ ID NO 37, wherein the seedy1 nucleic acid further consists essentially of a sequence having 90% sequence identity to a sequence selected from the group consisting of SEQ ID NOs 1, 5, and 7; (ii) one or more control sequences capable of regulating expression of the nucleic acid of (i); and optionally (iii) a transcription termination sequence.

32. (New) Construct according to claim 31, wherein said control sequence is a seed-specific promoter.

33. (New) A plant or plant cell transformed with a construct according to claim 31.

34. (New) Transgenic plant or plant cell according to claim 30, wherein said plant is a monocotyledonous plant such as sugar cane, or wherein the plant is a crop plant such as soybean, sunflower, canola, alfalfa, rapeseed, cotton, tomato, potato or tobacco, or wherein the plant is a cereal, such as rice, maize, wheat, barley, millet, rye, sorghum or oats.

35. (New) Harvestable parts of a plant according to claim 30, wherein said harvestable parts are seeds.